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| 09/355,732      | 08/04/1999  | KAZUHIKO MARUYAMA    | 1137-782A           | 6854             |

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03/05/2002

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WASHINGTON, DC 20004

EXAMINER

NGUYEN, LEE

| ART UNIT | PAPER NUMBER |
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2683

DATE MAILED: 03/05/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/355,732

Applicant(s)

MARUYAMA, KAZUHIKO

Examiner

LEE NGUYEN

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 17, 20, 22, 23 and 26-30 is/are allowed.
- 6) ☒ Claim(s) 13-15, 18, 19, 21, 24, 25 and 31-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Drawings***

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 12/31/2001 have been approved by the examiner. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

### ***Double Patenting***

1. Claim 35 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 34. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 13, 31-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamm et al. (US 5,457,680).

Regarding claim 13, Kamm discloses a base station B (fig. 1) and a plurality of radio terminals (SU) in which the radio base station B determines a number of radio channels to be assigned to a first radio terminal SU according to the rate of increase of stored data per unit time (fig. 1K, steps 622-626).

Regarding claims 31-32, Kamm teaches a base station B (fig. 1) and a plurality of radio terminals (SU) in which the radio base station B determines a number of radio channels to be assigned to a first radio terminal SU (fig. 1K, step 622); determining the amount of data of the radio terminal SU (col. 10, line 11-13); when the data is greater than a threshold requesting an increase in the number of radio channels assigned to the first

radio unit (col. 10, lines 15-16); when the data is less than a threshold requesting a decrease in the number of radio channels assigned to the first radio unit (col. 10, lines 17-21); if the slots are available assign to the first radio unit and if the slots (reads on the claimed assigning and reassigning, col. 10, line 15).

Regarding claim 33, Kamm also teaches channel table update (fig. 1J) once the radio channels are assigned (col. 10, line 15).

4. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Dunn et al. (US 5,625,877).

Regarding claim 14, Dunn teaches a base station 102-103 (fig. 1) and a plurality of radio terminals 101 in which the radio terminal determines a number of radio channels to be assigned to itself according to the rate of increase of stored data to be transmitted by that radio terminal per unit time (col. 12, line 66 through col. 13, line 22).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action;

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruckert et al. (US 5,781,583) in view of Nakagoshi et al. (US 5,799,252).

Regarding claim 15, Bruckert teaches a handover communication of a mobile station 12 between a first base station A and a second base station B in which the same channels are assigned to both base stations A and B (col. 10, lines 15-22). Bruckert does not teach exchanging information regarding channels in a hand over. Nakagoshi teaches the exchanging information regarding channels in a hand over between the base stations (col. 4, lines 10-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Nakagoshi to the system of Bruckert in order to enhance handover process.

7. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamm in view of Krebs et al. (US 5,448,759).

Regarding claims 34-35, Kamm teaches dynamical channels assignment in TDMA. Kamm does not teach dynamically assigning channels in FDMA. Krebs discloses dynamically assigning channels in both TDMA and FDMA (col. 5, line 50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to also provide dynamically channel assignment in FDMA of Krebs to the system of Kamm in order to enhance data communication.

8. Claims 18-19, 21, 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamm in view of Dunn.

Regarding claims 18-19, the claims are interpreted and rejected for the same reason as set forth in claim 31. Kamm only differs from the claimed invention in that the first radio terminal determines a number of radio channels to be assigned to the first radio terminal. This technique is conventionally well known and taught by Dunn as illustrated in the rejection of claim 14 (col. 12, line 66 through col. 13, line 22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the number of radio channels at the first radio terminal as

taught by Dunn to the system of Kamm in order to reduce the burden of computation in the base station.

Regarding claim 21, the claim is interpreted and rejected for the same reason as set forth in claim 33.

Regarding claim 25, Kamm teaches dynamical channels assignment in TDMA (col. 10, line 14).

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamm in view of Dunn as applied to claim 18 above and further in view of Krebs.

Regarding claim 24, the claim is interpreted and rejected for the same reason as set forth in claim 34.

***Allowable Subject Matter***

10. Claims 16-17, 20, 22-23, 26-30 are allowed.

Regarding claims 16 and 26, the prior art of record fails to teach the assigning and reassigning adjacent channels in response to a request for an increase as claimed.



***Response to Arguments***

11. Applicant's arguments filed 12/31/2001 have been fully considered but they are not persuasive.

Regarding the rejection of independent claim 13, Applicant contends that Kamm does not disclose the determination of a number of radio channels to be assigned to a radio terminal according to the rate of increase of stored data to be transmitted by that radio terminal per unit time as claimed.

In response, Applicant is referred to steps 622-626 in figure 1K of Kamm which teaches the limitation as claimed.

The argument concerning the rejection of independent claim 14 is not in the claim.

The argument concerning the rejection of independent claims 15, 18-19, 21, 24-25, 31-35 is moot in view of a new ground rejection.

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE**

**FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **LEE NGUYEN** whose telephone number is (703)-308-5249. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **WILLIAM TROST** can be reached on (703) 308-5318. The fax phone numbers for the organization where this application

or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

LEE NGUYEN *Lee 2/28/02*  
Primary Examiner  
Art Unit 2683